

CLAIMS

The invention is claimed as follows:

1. A flowable materials conveyance assembly comprising:
a conduit having a wall defining a first pathway for conveying flowable materials and having an inlet to the pathway and an outlet from the pathway; and
a multiple layer structure having a first web and a second web connected together along an interface proximate the inlet, the multiple layer structure is capable of moving from a sealed position to an activated position in response to materials delivered under pressure to the structure along a second pathway different from the first pathway to allow flowable materials to enter the inlet.
2. The assembly of claim 1, wherein the multiple layer structure is attached to the conduit.
3. The assembly of claim 2, wherein the multiple layer structure has an attaching section and a sealing section, the attaching section having the conduit inserted between the first layer and the second layer, and wherein the sealing section has the first web attached to the second web in a fluid tight seal over the inlet.
4. The assembly of claim 3, wherein the first web is connected to the second web along a peel seal in the sealing section.
5. The assembly of claim 4, wherein the peel seal allows for adhesive release of the first web from the second web.
6. The assembly of claim 1, wherein the first web and the second web are capable of forming a peel seal and a permanent seal.
7. The assembly of claim 6, wherein the first web comprises a matrix-phase polymer system.
8. The assembly of claim 7, wherein the matrix polymer is a polyethylene homopolymer, an ethylene α -olefin copolymer, a polyethylene copolymer, a polypropylene homopolymer, or a polypropylene copolymer and the phase polymer is a styrene and

hydrocarbon random copolymer, a styrene and hydrocarbon block copolymer, and an ethylene α -olefin copolymer.

9. The assembly of claim 4, wherein the first web comprises a homophase polypropylene.

10. The assembly of claim 4, wherein the peel seal can be activated by a force within the range of 3-30 N/15 mm.

11. A closure assembly for a flowable materials container comprising:
a container having opposing sidewalls defining a chamber therebetween; and
a conduit having a portion extending into the chamber and having a fluid inlet, interfacing portions of the sidewalls are connected together along a peel seal over the inlet to define a closure.

12. The assembly of claim 11, wherein the closure is capable of being moved from a closed position to an open position in response to fluid pressure.

13. The assembly of claim 12, wherein the fluid pressure can be generated by a fluid in the chamber or by a fluid outside the chamber.

14. The assembly of claim 13, wherein the peel seal divides the chamber into at least two sub-chambers.

15. The assembly of claim 14, wherein the peel seal has a first portion proximate the closure having a first peel seal activating force and a second portion distal from the closure having a second peel seal activating force wherein the second peel seal activating force is less than the first peel seal activating force.

16. The assembly of claim 15, wherein the difference between the first peel seal activating force and the second peel seal activating force is greater than about 1 N/15 mm and less than about 5 N/15 mm.

17. A flowable materials container comprising:

a pair of opposing sidewalls defining a chamber therebetween, interfacing portions of opposed sidewalls are sealed together along a peel seal to define at least two separate sub-chambers; and

a conduit having a portion extending into the chamber and having a fluid inlet, the fluid inlet is closed by a portion of the peel seal.

18. The container of claim 17, wherein the peel seal is moveable from a closed position to an activated position.

19. The container of claim 18, wherein the peel seal is moveable from a closed position to an activated position in response to fluid pressure applied to the peel seal.

20. The container of claim 19, wherein the peel seal has a first portion proximate the inlet having a first peel seal activating force and a second portion distal from the closure having a second peel seal activating force wherein the second peel seal activating force is less than the first peel seal activating force.

21. The container of claim 17, wherein the conduit is generally circular in cross-sectional shape and has an axis that extends in a direction parallel to the peel seal.

22. The container wherein the conduit is generally circular in cross-sectional shape and has an axis that extends in a direction transverse to the peel seal to define an angle.

23. The container of claim 22, wherein the angle is an obtuse angle.

24. The container of claim 22, wherein the angle is an acute angle.

25. The container of claim 22, wherein the angle is approximately a right angle.

26. The container of claim 17, wherein the peel seal has a length, the peel seal having a serrated portion along at least a portion of its length.

27. The container of claim 17, wherein the sidewalls are connected together along a permanent seal about a periphery of the container and the peel seal extends between two points on the periphery.

28. The container of claim 27, wherein the peel seal has a first edge and a second edge, and the serrated portion is located on one of the first edge or the second edge.

29. The container of claim 27, wherein the peel seal has a first edge and a second edge, and a serrated portion is located on both the first edge and the second edge.

30. The container of claim 17, wherein the serrated portion is spaced from the periphery.

31. The container of claim 27, wherein the serrated portion includes inner points, outer points, angular legs connecting the inner points and outer points, and a depth between the outer points and inner points.

32. The container of claim 27, wherein the first sidewall and second sidewall of the container form an angular joint at the inner points.

33. A method for mixing two components separately stored in sub-chambers of a dual chamber container comprising:

providing a fluid container having a first chamber, a second chamber a peel seal dividing the first chamber from the second chamber, and a fluid access device having a fluid inlet positioned inside the chamber, the fluid inlet being sealed closed by a first portion of the peel seal;

activating a second portion of the peel seal to provide a fluid pathway between the first chamber and the second chamber without activating the first portion; and

activating the first portion of the peel seal to open the fluid inlet.

34. A multiple chamber container comprising:

a sidewall defining a fluid chamber, a portion of the sidewall being sealed together to divide the fluid chamber into at least two sub-chambers along a peel seal; and

an access member attached to the sidewall for puncturing the sidewall to provide access to the fluid chamber.